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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,791	11/13/2001	Jean Noel Bertho	FLEC16.001AUS	4760

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EXAMINER

MCINTOSH III, TRAVISS C

ART UNIT	PAPER NUMBER
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1623

DATE MAILED: 01/14/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

File Copy

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/008,791	BERTHO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Traviss C McIntosh	1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2001.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1- ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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***Detailed Action***

***Priority***

Acknowledgment is made of applicant's claim for foreign priority under 35

U.S.C. 119(a)-(d).

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

Acknowledgement is made of Information Disclosure Statement filed and the references have been taken into consideration only in light of the portion which was supplied in English.

***Specification***

The use of trademarks such as Tergitol™, Triton™, Pluronic™, Tetronic™, and Germaben™ have been noted in this application on pages 12, 13, and 18. They should be capitalized wherever they appear in the application and be accompanied by their generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### *Claim Objections*

Claim 15 is objected to because of the following informalities: a typographical error in the first line which states “**comprisingl**”, it is noted that the word is being interpreted as “**comprising**”. Appropriate correction is respectfully requested.

Claims 12-14 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Applicant’s intended limitation which recites where the product as claimed is derived, has no patentable import on the product claim itself. This claim is treated as a product by process claim wherein the process limitations on how or where a claimed product is derived has no patentable import. *In re Thorpe*, 227 USPQ 964, 966 (Fed Cir 1965).

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite where the claim reads “comprising placing fusel oils in contact with one or more reducing sugars in the presence of an acid catalyst, at a temperature of between 50°C and 130°C and while removing the water from the reaction medium until a solution of alkyl glycosides is obtained, and separating the glycosides from this solution”. It is unclear when the

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step of removing the water from the reaction medium is to take place. Is it intended to occur during the fusel oil/reducing sugar/acid catalyst reaction, or during the glycoside separation, or between these steps? In an effort to provide compact prosecution, the examiner is interpreting the claim as: placing fusel oils in contact with one or more reducing sugars in the presence of an acid catalyst at a temperature of between 50°C and 130°C, removing the water from the reaction medium to obtain an alkyl glycoside solution, and separating the glycoside from the solution.

The term "the impurities" in claim 9 and 10 is a relative term which renders the claim indefinite. The term "the impurities" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Without defining the level of what is intended as being an impurity, one of ordinary skill would not be reasonably apprised of all that applicant intends to encompass by this recitation.

All claims which depend from an indefinite claim are also indefinite. *Ex parte Cordova, 10 U.S.P.Q. 2d 1949, 1952 (P.T.O. Bd. App. 1989).*

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rasche et al. (US Patent 4,939,245) in view of Bertho et al. (US Patent 6,087,403).

The claims of the instant application are drawn to a method of producing a solubilization adjuvant comprising: placing fusel oils in contact with one or more reducing sugars in the presence of an acid catalyst at a temperature of between 50°C and 130°C, removing the water from the reaction medium to obtain an alkyl glycoside solution, and separating the glycoside from the solution wherein the reducing sugars are more specifically pentoses (L-arbinose and D-xylose) and/or hexoses (D-glucose, D-galactose, or D-mannose). Additionally the process is further limited when, prior to the reaction, the heavy fractions which have boiling points greater than 140°C and the light fractions which have boiling points lower than 100°C are removed by distillation. The instant dependent claims are also drawn to adjuvants comprising on a weight basis the specific polyglycosides in claims 9 and 10 and to compositions comprising the adjuvant (10% to 60% by weight) and additional nonionic, anionic, amphoteric, cationic surfactants, and/or polyglycosides containing from 8-22 carbon atoms on the alkyl chain (40% to 90% by weight). The instant dependent claims are additionally drawn to compositions comprising from 0.5% to 5% adjuvant, 1% to 10% alkyl polyglycosides containing from 8-14 carbon atoms on the

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alkyl chain, and optionally: 1% to 10% linear or branched alkanols (with 2-5 carbon atoms), 0.1% to 3% lipophilic substances to be dissolved, 0.1% to 2% essential oil (pine, lemon, orange, mandarin, grapefruit, lavender, mint, thyme, rosemary, or eucalyptus oil) wherein the compositions may be a cosmetic, dermocosmetic, pharmaceutical or plant-protectant composition.

Rasche et al. teach of a method of preparing a glycoside product by: reacting an alcohol with a saccharide reactant (a monosaccharide) at an elevated temperature in the presence of an acid catalyst (column 1, line 65 – column 2, line 20) wherein a solvent is added to the mixture to aid in the removal of water from the glycoside product (column 2, lines 60-64). The preferred alcohols of Rasche et al. are disclosed in column 3, lines 13-20 wherein the alcohols can be linear or branched and contain from about 4 – 30 carbon atoms. The saccharide materials of Rasche et al. include glucose, lactose, mannose, xylose, fructose, and the like (column 3, lines 34-36). The reaction temperature is generally in the range of about 85°C to about 200°C (column 4, lines 65-69). Rasche et al. also disclose the use of their polyglycosidic products as surfactants (column 6, lines 3-8).

What is not taught by Rasche et al. is to use fusel oil as a means of a source for the alcohol in the reaction, the specific polyglycosidic adjuvants, to remove the various fractions above 140°C and below 100°C by distillation, nor to add the additional surfactants/oils to the compositions.

Bertho et al. teach a method of producing a polyglycoside composition comprising reacting mixtures of reducing sugars with alcohols in the presence of an acid catalyst (column 5, line 62 – column 6, line 8) wherein reducing sugars are taught to be mixtures of pentoses and

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hexoses (column 5, lines 39-4) and the hexoses represent about 35% - 75% and the pentoses 25% to 65% the weight of the polyglycosides. Bertho et al. also teach to optionally add other emulsifying agents, oils of plant, vegetable, or animal origin, ionic or non-ionic thickeners, hydrotropic agents, preservatives, and other common agents added to pharmaceuticals (column 6, line 31 – column 7, line 54).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the various additives of Bertho et al. into the product of Rasche et al. as these additional agents are common additives in the pharmaceutical field, especially in the art of topical compositions. It would have been obvious to one of ordinary skill in the art to use fusel oil as the starting alcohol containing solution, as it is known to use alcohols in the process as claimed. The use of a known member of a class of compounds in a process is not patentable if other members of the class are known to be useful for the same purpose in the process.

Additionally, once a general reaction has been shown to be old (alcohol + acid catalyst + saccharide → polyglycoside) the burden is on the applicant to present reason or authority for believing that a group comprising the starting compound (fusel oil) would take part in or affect the basic reaction and thus alter the nature of the product or the operability of the process and thus unobviousness of the method of producing it. Fusel oil is known to comprise n-propyl alcohol, isobutyl alcohol, amyl alcohol (any of 8 compounds with the formula  $C_5H_{11}OH$ ), and other alcohols in large percentages, and one of ordinary skill in the art would reasonably expect the reaction of Rasche et al. to be equally efficient and would obtain compositions consistent with those of instant application as the adjuvants as claimed in claims 9 and 10 of the instant application are the direct results of the starting fusel oil, not the process which has been used in



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the art. It would have been obvious to one of ordinary skill in the art to remove the heavy fractions and light fraction by distillation prior to reaction the fusel oil to remove the long and short chained alcohols and other impurities which do not have the boiling points in the range sought. One would have been motivated to combine these teachings and provide compositions used as surfactants or solubilizing adjuvants as polyglycosides are known in the art to be effective as surfactants or solubilizing adjuvants and fusel oil is a common byproduct in alcohol fermentation which contains a range of short chained alcohols which independently are know to provide excellent glycosidic surfactants.

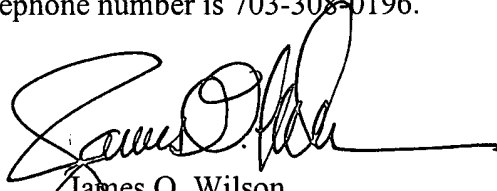
### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Traviss McIntosh whose telephone number is 703-308-9479. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 703-308-4624. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Traviss C. McIntosh  
January 13, 2003



James O. Wilson  
Supervisory Patent Examiner  
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